

DOCUMENT RESUME

ED 455 590

EA 031 149

AUTHOR Wurtz, Emily
TITLE Promising Practices: Progress toward the Goals, 2000.
Lessons from the States.
INSTITUTION National Education Goals Panel (ED), Washington, DC.
PUB DATE 2000-12-00
NOTE 51p.; Based on articles written in 2000 by Barbara Pape and Anne Lewis in the NEGP Monthly (<http://www.negp.gov/monthly>), and on an NEGP report, "Minnesota & TIMSS: Exploring High Achievement in Eighth Grade Science." Data pages are from the 1999 Goals Report. For the 1999 report, see ED 437 727.
AVAILABLE FROM For full text: <http://www.negp.gov/page9-3.htm>.
PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Early Childhood Education; *Educational Assessment; *Educational Objectives; Educational Practices; Educational Quality; Educational Research; Elementary Secondary Education; Government Publications
IDENTIFIERS Educational Indicators; National Education Goals Panel

ABSTRACT

It is said that "there is no problem in American education that is not already solved in some American school. The pressing need is to discover these success stories and learn from them." This document presents data from educational indicators used by the National Education Goals Panel (NEGP) to provide insight into what works in schools across the nation. The data show that while overall national progress may be slow, state performance varies, and some states are doing well. Seventeen states have achieved a 90 percent high school completion rate, and all 50 have increased the number of Advanced Placement exams. Eight NEGP goals are presented starting with a description of their focus, a list of objectives, the indicator variable, a discussion of the indicator's importance, statistics tables, noteworthy success cases, lessons learned, and informational resources. Goals include: (1) Ready To Learn; (2) School Completion; (3) Student Achievement and Citizenship; (4) Teacher Education and Professional Development; (5) Mathematics and Science; (6) Adult Literacy and Lifelong Learning; (7) Safe, Disciplined, and Alcohol- and Drug-Free Schools; and (8) Parental Participation. Minnesota's world-class science performance on the Third International Mathematics and Science Study in 1995 is discussed as an NEGP case study. A list of resources for further reading concludes the document. (RT)

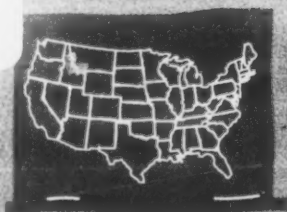
PROMISING PRACTICES: PROGRESS TOWARD THE GOALS

2000



U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



Lessons
from the States

THE NATIONAL EDUCATION GOALS PANEL

BEST COPY AVAILABLE

National Education Goals Panel

Governors

Tommy G. Thompson, Wisconsin (Chair, 2000)
John Engler, Michigan
Jim Geringer, Wyoming
James B. Hunt, Jr., North Carolina
Frank Keating, Oklahoma
Frank O'Bannon, Indiana
Paul E. Patton, Kentucky
Cecil H. Underwood, West Virginia

Members of the Administration

Michael Cohen, Education Advisor to the President of the United States
Richard Riley, U.S. Secretary of Education

Members of Congress

U.S. Senator Jeff Bingaman, New Mexico
U.S. Senator Jim Jeffords, Vermont
U.S. Representative William F. Goodling, Pennsylvania
U.S. Representative Matthew Martinez, California

State Legislators

Representative G. Spencer Coggs, Wisconsin
Representative Mary Lou Cowlshaw, Illinois
Representative Douglas R. Jones, Idaho
Stephen M. Stoll, Missouri

National Education Goals Panel Staff

Emily O. Wurtz, Acting Executive Director
John W. Barth, Senior Education Associate
Cynthia M. Dixon, Program Assistant
Burt Glassman, Education Associate
Christopher R. Harrington, Education Associate
Erika Kirby, Secretary
Cynthia D. Prince, Associate Director for Analysis and Reporting

PROMISING PRACTICES:

PROGRESS TOWARD THE GOALS 2000



NATIONAL
EDUCATION
GOALS
P A N E L



Lessons
from the States

FOREWORD

December 2000

On behalf of the National Education Goals Panel, I am pleased to present *Promising Practices: Progress Toward the Goals, 2000*. The Panel has selected one indicator for each of the eight national education goals and asked the questions, Which States have made the most progress in this area? Which States perform at the highest level? Which States show progress across all the goals and indicators? And why?

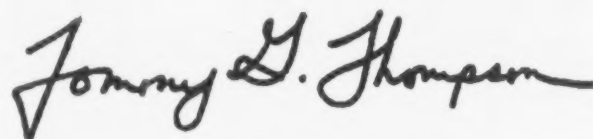
Throughout 2000, State policymakers were interviewed in the States that have made top improvement and performance on selected Goals Panel indicators. *Promising Practices* tells their story. Although officials themselves were sometimes uncertain, they shared what they thought were the reasons for their State's systemwide success. This information can help other States dealing with similar issues.

For too long, "success" in education has been self-proclaimed. It's time to replace rhetoric with data in determining what works. Since 1991, the Panel has reported the best available data on the education outcomes our country wants. But not enough good data are available. As chair of the Goals Panel, I convened a special task force, chaired by the former Governor of Maine, John McKernan, a former chair of the Goals Panel, to recommend bold new ways to secure better data with which the States and the Nation can judge the effects of education reform. Measuring alone is not enough, but measuring well is an essential element in securing an excellent education for every child.

I know there are additional State stories to be told. In December 1999, the Goals Panel celebrated its 10th anniversary and gave awards to 12 States that made outstanding progress in specific goal areas and across the goals. Each of them has a story to tell. As chair of the Goals Panel this year, I convened field hearings across America—in Los Angeles, Burlington (Vermont), Atlanta, and Chicago—and heard testimony about outstanding programs that had brought all students to higher standards of academic achievement. We need to learn from the experience of States and programs that succeed.

The issue before America has become not whether we can improve education, but how to speed the progress being made. In that quest, more attention needs to be paid to what we can learn from the "natural experiment" of State educational reform. As these data show, some States are making remarkable statewide improvements. We should all learn from them. I want State policymakers to read *Promising Practices*, identify successful States, and borrow and adapt ideas that work.

Sincerely,

A handwritten signature in black ink that reads "Tommy G. Thompson". The signature is fluid and cursive, with the first name "Tommy" and last name "Thompson" clearly legible.

Tommy G. Thompson, Chair (2000)
National Education Goals Panel
and Governor of Wisconsin

TITLE II—NATIONAL EDUCATION RE- FORM LEADERSHIP, STANDARDS, AND ASSESSMENTS

PART A—NATIONAL EDUCATION GOALS PANEL

SEC. 203. [20 U.S.C. 5823] DUTIES.

(a) IN GENERAL.—The Goals Panel shall—

(1) report to the President, the Secretary, and the Congress regarding the progress the Nation and the States are making toward achieving the National Education Goals established under title I of this Act, including issuing an annual report;

(2) review voluntary national content standards and voluntary national student performance standards;

(3) report on promising or effective actions being taken at the national, State, and local levels, and in the public and private sectors, to achieve the National Education Goals; and

(4) help build a nationwide, bipartisan consensus for the reforms necessary to achieve the National Education Goals.

Emily Wurtz wrote *Promising Practices: Progress Toward the Goals, 2000* on the basis of articles written in 2000 by Barbara Pape and Anne Lewis in the *NEGP Monthly* (www.negp.gov/monthly), and on the basis of *Minnesota & TIMSS: Exploring High Achievement in Eighth Grade Science*, a special report prepared and released by the National Education Goals Panel. Data pages are either from the *1999 Goals Report* or updated in 2000 by Westat staffer Jennifer Hamilton. The Panel wishes to thank the National Education Association for the use of the photographs in this publication.

TABLE OF CONTENTS

Foreword	3
Introduction	6
Lessons from the States	
Goal 1: Ready to Learn (Children's Health Index)	
Information from Connecticut, Florida, and Massachusetts	8
Goal 2: School Completion (High School Dropout Rates)	
Information from Iowa, Georgia, and New York	12
Goal 3: Student Achievement and Citizenship (Advanced Placement Performance)	
Information from Connecticut, New York, and Virginia	16
Goal 4: Teacher Education and Professional Development (Teacher Support)	
Information from North Carolina, Florida, and Pennsylvania	20
Goal 5: Mathematics and Science (Mathematics Resources)	
Information from Tennessee, Alaska, and Vermont	24
Goal 6: Adult Literacy and Lifelong Learning (Participation in Higher Education)	
Information from South Carolina, New York, and California	28
Goal 7: Safe, Disciplined, and Alcohol- and Drug-Free Schools (Disruptions in Class by Students)	
Information from North Dakota, Oklahoma, and Wyoming	32
Goal 8: Parental Participation (Influence of Parent Associations)	
Information from Colorado, California, and Kentucky	36
Progress Across the Goals: World-Class Science Performance in Minnesota	40
Resources: For Further Reading	43

INTRODUCTION

Promising Practices: Progress Toward the Goals was created to tell the stories of the States performing well or making significant improvements toward achieving the National Education Goals. It is rooted in data from the annual report of the National Education Goals Panel (NEGP). Those data are used to identify success and uncover the stories behind it. In 2001 the Goals Panel will release its data report summarizing progress over the decade since National Education Goals were established. While no new data report was prepared in 2000, *Promising Practices 2000* reflects the latest available information, with updates in goal areas where there are new data.

Using Statewide Data to Look for What Works

It is said there is no problem in American education that is not already solved in some American school. The pressing need is to discover these success stories and learn from them. The data of the National Education Goals Panel can help.

The "success" reported by the Goals Panel is based on hard data. The Panel, a bipartisan group of Governors, State legislators, members of the U.S. Congress, and White House representatives, upon the advice of education experts, selected the best available data as indicators of progress toward the goals. They did not know what those indicators would show from year to year. They *did* agree that such information is an essential tool in their work to improve education.

Those data show that while overall national progress may be slow, State performance varies, and some States are doing well. Seventeen states have achieved a 90 percent high school completion rate, thus reaching Goal 2, and all 50 have increased the number of Advanced Placement exams receiving a

grade of 3 or higher, an indicator to measure Goal 3. There is much to be learned from the places doing well, if we know where to look and what questions to ask. As a Nation, we need to learn how to use these data effectively. *Promising Practices: Progress Toward the Goals* is one attempt to do so.

Where Did These 'Promising Practices' Come From?

For each national education goal, one NEGP indicator was chosen. This year, for Goal 1, school readiness, it was changes in the percentage of children born with one or more health risks. For Goal 2, high school completion, it was high school dropout rates. For Goal 3, student achievement, it was increases in the number of Advanced Placement examinations earning college credit. For Goal 4, teacher education, it was support in the form of formal induction and mentors for first-year teachers. For Goal 5, math and science achievement, it was the availability of computers in eighth grade mathematics classes. For Goal 6, adult literacy, it was the rate at which high school graduates went immediately on to college. For Goal 7, safe schools, it was disruptions in class by students. For Goal 8, parent participation, it was changes in the perceived influence of parent associations.

States that performed well or improved significantly on these indicators were asked how they did it. State officials were interviewed and asked to what they attributed the State's good performance. Officials sometimes frankly said they were not sure. In some areas, they believed the culture or demographics of their communities was important. Nonetheless they described the policies and programs that in their judgment may account for progress.

Promising Practices is not comprehensive. Goals Panel data show other States doing equally well; other policies may be as effective as those cited here; and factors not mentioned may one day prove to be the underlying causes of improvement. Too few of the data needed to judge progress are available. While there are some data from national studies, the availability of data that are comparable among the States is woefully inadequate.

Nonetheless, the States described in this book have experienced statewide success, and their practices reflect what State officials believe caused the success. They are not isolated programs of excellence, but essential to States performing at high levels or improving on tough measures of progress toward the Nation's education goals. *Promising Practices: Progress Toward the Goals* offers readers food for thought as they create a menu of school reform in their State or school district.



GOAL 1: READY TO LEARN

By the year 2000, all children in America will start school ready to learn.

Objectives:

- All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school.
- Every parent in the United States will be a child's first teacher and devote time each day to helping such parent's preschool child learn; and parents will have access to the training and support parents need.
- Children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn; and the number of low-birthweight babies will be significantly reduced through enhanced prenatal health systems.

Indicator:

- Children's Health Index: Which States have reduced the percentage of infants born with one or more of four health risks (late or no prenatal care; low maternal weight gain; mother smoked or drank alcohol during pregnancy)? (Data are from 1990 and 1998.)

Nothing could be more important than the well-being of the very young. Unless society meets the basic needs that enable children to learn, schools will not succeed in their efforts to teach. The National Education Goals Panel seeks a direct measure of children's school readiness, broadly defined as their physical health, social and emotional development, language use, and general knowledge. Currently, such data are not available. The Panel welcomes reports issued in 2000 about the status of kindergarten students as part of the Early Childhood Longitudinal Study (ECLS), and hopes such studies may ultimately lead to similar State-level data. Absent such information, the Panel reports progress toward the three Goal 1 objectives above, including the one related to



children's physical health. For this reason, the Goals Panel created a Children's Health Index, which reflects the States' success in reducing the number of children born with one or more of four health risks listed above. The Nation as a whole improved performance on this index by reducing the percentage of infants born with one of the health risks from 37 percent in 1990 to 33 percent in 1998. Likewise, 38 States improved significantly on this indicator. Florida and Massachusetts (see opposite page) were among both the top-improving and top-performing States. Connecticut (and Hawaii), with only 25 percent of infants born with these health risks compared with the national average of 33 percent, were the top performers on this indicator.

GOAL 1: Ready to Learn

Children's Health Index

Have states¹ reduced the percentages of infants born with one or more of four health risks?²

↑	Better	38 states and the U.S.
↔	No Change	8 states
↓	Worse	3 states

Improvement over time

1. Alabama	11. Illinois	21. Nevada	31. Tennessee
2. Arizona	12. Iowa	22. New Hampshire	32. Texas
3. Arkansas	13. Kentucky	23. New Mexico	33. Vermont
4. Colorado	14. Louisiana	24. North Carolina	34. Virginia
5. Delaware	15. Maryland	25. Ohio	35. Washington
6. District of Columbia	16. Massachusetts	26. Oklahoma	36. West Virginia
7. Florida	17. Michigan	27. Oregon	37. Wisconsin
8. Georgia	18. Mississippi	28. Pennsylvania	38. Puerto Rico
9. Hawaii	19. Missouri	29. Rhode Island	
10. Idaho	20. Nebraska	30. South Carolina	

Highest-performing states*

States with the lowest percentages of infants born with one or more of four health risks:

	(1998)		(1998)
Connecticut	25%	Georgia	31%
Hawaii	25%	Massachusetts	31%
Maryland	28%	Virginia	31%
Utah	28%	Washington	31%
Texas	29%	Idaho	32%
Rhode Island	29%	Kansas	32%
Arizona	30%	Nevada	32%
Colorado	30%	New Hampshire	32%
Florida	30%	U.S.	33%
Minnesota	30%		

* States that had a significantly lower percentage than the U.S. average.

Most-improved states

States that made the greatest reductions in the percentages of infants born with one or more of four health risks:

	(1990)	(1998)	Change*
District of Columbia	48%	34%	-14
Massachusetts	42%	31%	-11
Arizona	37%	30%	-7
Florida	37%	30%	-7
Rhode Island	36%	29%	-7

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

¹ The term *state* is used to refer to the 50 states, the District of Columbia, and the outlying areas.

² Risks are: late (in third trimester) or no prenatal care; low maternal weight gain (less than 21 pounds); mother smoked during pregnancy; or mother drank alcohol during pregnancy.

GOAL 1: READY TO LEARN

Nationally, the percentage of infants born with one or more health risks—mothers who received late (third trimester) or no prenatal care; with low (under 21 pounds) weight gain during pregnancy; who smoked during pregnancy; or who drank alcohol during pregnancy—fell significantly, from 37 percent in 1990 to 33 percent in 1998. A similar, statistically significant decline occurred in 38 of the States. Connecticut and Hawaii were the top-performing States on this indicator in 1998. Massachusetts and Florida—along with Arizona and Rhode Island—were among both the top-performing and top-improving States on this indicator.

Connecticut

In 1998, Connecticut had only 25 percent of infants born with one or more of four health risks. Like Massachusetts and Florida, Connecticut cites Healthy Start as the program that focused the State's attention on prenatal care issues. The goal of Connecticut's Healthy Start program, according to Lisa Davis, supervising nurse consultant with the State Department of Health, is to improve access to and availability of comprehensive health and health-related services to eligible pregnant women and children in order to reduce infant mortality and improve the health status of children. Services provided by Healthy Start include both case identification (door-to-door visits) and media campaigns and needs assessment. All clients receive a standard Healthy Start risk assessment to determine the risk level of pregnant women.

Davis also points to the success of Healthy Choices for Women and Children (HCWC), a project funded by the Connecticut Department of Public Health and Addiction Services. HCWC provides case management, case coordination, counseling, home visiting, and parenting support to Waterbury residents who are low-income (Healthy Start eligible) pregnant women of any age. It serves clients who use or have used alcohol and other drugs or whose partners presently abuse alcohol or drugs. The program is deemed highly effective and was selected as one of 16 national Exemplary Prevention Programs in 1995.

In addition, pregnant teens in 13 Connecticut cities are targeted in Connecticut's Adolescent Pregnancy Prevention/Young Parents Program (APP/YPP).

Florida

Florida was both one of the highest-performing and one of the most improved states in reducing the percentage of infants born with health risks from 37 percent in 1990 to 30 percent in 1998.

State officials cite Florida's Healthy Start program as a primary reason for the State's success in this area. According to Cindy Lewis, a supervisor with the State Department of Health, Healthy Start relies on a team of registered nurses and social workers to provide a wide variety of services. These include home visits by a nurse and/or social worker; nursing and developmental assessments; parent education and support; nutrition education and smoking cessation counseling; education materials pertaining to prenatal care, birth, and infant care; and information and referral to other community services and programs. Services are provided in a clinic or in the mother's home. Families must consent to services before they can be provided.

Massachusetts

Massachusetts was also among both the most improved and the highest-performing states on the Children's Health Index.

A report issued by the Massachusetts Department of Public Health in 1985 initiated current State

efforts to lower health risks for infants, explained Janet Leigh, a spokesperson for the Massachusetts Department of Public Health. *Closing the Gaps: Strategies for Improving the Health of Massachusetts Infants* offered five recommendations for closing the gap between advantaged and disadvantaged infants and families: (1) Targeting and tailoring strategies to reduce low birth weight and infant mortality specifically for high-risk groups and areas; (2) Making maternity and infant health care affordable for all; (3) Making comprehensive maternity and infant care services readily accessible to all women in the State; (4) Informing every woman of childbearing age about factors

contributing to healthy babies and about availability of services; and (5) Strengthening ongoing monitoring of maternal and infant health status and needs.

A 1988 evaluation of the Massachusetts Healthy Start program found the program to be effective at promoting participating mothers information and referral services, health education, advocacy, follow-up, and care coordination through staff and a toll-free phone line. Healthy Start staff were multilingual. They enrolled over half the women on MassHealth, resulting in earlier access to prenatal care and other services for high-risk women.

Lessons Learned

- State implementation of Healthy Start programs combined with unique State health initiatives have had a significant positive impact in reducing the number of infants born with one or more health risks—in the Nation as a whole and in most States.
- States are working in multiple ways to inform potential mothers of the importance of health care for their infants and to supply appropriate health care and information.
- Providing early health care services for pregnant women can result in better health outcomes for their children.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Janet Leigh
Policy and Program Development
Bureau for Family and Community
Health
Department of Public Health
250 Washington Street
Boston, MA 02108
(617) 624-6015

Cindy Lewis
Executive Community Health
Nursing Director
Community and Child Health
Department of Health
Bin A-13 4052 Bald Cypress Way
Tallahassee, FL 32399-1723
(850) 245-4465

Lisa Davis
Supervising Nurse Consultant
Maternal and Child Health Unit
410 Capitol Avenue MS #11FHD
PO Box 340308
Hartford, CT 06134-0308
(860) 509-8074



GOAL 2: SCHOOL COMPLETION

By the year 2000, the high school graduation rate will increase to at least 90 percent.

Objectives:

- The nation must dramatically reduce its school dropout rate, and 75 percent of the students who do drop out will successfully complete a high school degree or its equivalent.
- The gap in high school graduation rates between American students from minority backgrounds and their nonminority counterparts will be eliminated.

Indicator:

- High School Dropout Rates: What States reduced the percentages of students in grades 9–12 who leave school without completing a recognized secondary program? (Data are from 1992 and 1997.)



High school completion has become a must for students hoping to find a job and prosper in the information-based economy. Leaving high school without a diploma or completing a State- or district-approved education program and without the knowledge and skills they represent decreases a student's prospects for earnings and success in adult life. While States and local districts calculate their dropout rates in several different ways, Iowa and New York were among the top-performing 6 states (out of 39) that used a common definition in 1997. In 1997, Iowa and New York—along with Maine, Massachusetts, and North Dakota—all reported a low 3 percent dropout rate. Between 1994 and 1997, Georgia's dropout rate using this definition fell from 9 percent to 8 percent.

GOAL 2: School Completion

High School Dropout Rates

Have states¹ reduced the percentages of students in Grades 9-12 who leave school without completing a recognized secondary program?

↑	Better	13 states
↔	No Change	3 states
↓	Worse	11 states

Improvement over time

Between 1992 and 1997, 13 states (out of 27) significantly reduced the percentages of students in Grades 9-12 who left school without completing a recognized secondary program:

1. Arizona	5. Iowa	9. Ohio	13. Puerto Rico
2. Connecticut	6. Missouri	10. Rhode Island	
3. District of Columbia	7. Montana	11. West Virginia	
4. Georgia	8. New York	12. Wyoming	

Highest-performing states*

States with the lowest percentages of students in Grades 9-12 who left school without completing a recognized secondary program:

	(1997)
Iowa	3%
Maine	3%
Massachusetts	3%
New York	3%
North Dakota	3%
Wisconsin	3%

No comparable national data available.

* Top 6 states (out of 39).

Most-improved states

States that made the greatest reductions in the percentages of students in Grades 9-12 who left school without completing a recognized secondary program:

	(1992)	(1997)	Change*
Arizona	11%	10%	-1
Connecticut**	5%	4%	-1
District of Columbia**	12%	11%	-1
Georgia**	9%	8%	-1
Montana**	6%	5%	-1
Puerto Rico**	2%	2%	-1
Wyoming**	7%	6%	-1

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

** Data for the District of Columbia were collected in 1992 and 1995.
Data for Connecticut were collected in 1993 and 1997.
Data for Georgia were collected in 1994 and 1997.
Data for Puerto Rico were collected in 1995 and 1996.
Data for Wyoming were collected in 1995 and 1997.
Data for Montana were collected in 1996 and 1997.

¹ The term state is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 2: SCHOOL COMPLETION

Only 13 of the 39 States using a common definition of dropout in 1997 reduced the percentage of students who dropped out of high school that year without completing a State- or district-approved education program or meeting their exclusionary conditions.

Iowa

Iowa is among six States with the lowest annual dropout rates (3 percent). It is the result of long-term, focused investment in local efforts by the State.

Iowa has collected information on dropouts for many years. Since 1984, Iowa has had a funding process that allows local districts to raise their own property taxes for dropout prevention and services. The Governor's office sets the rate for increases in school budgets, but school districts may raise additional money targeted at dropout prevention. Currently, 205 districts are taking advantage of the option. Also, school districts can apply for additional funding from the State weighted to serve dropouts, either in district-run alternative schools or through a consortium of smaller districts that establish an alternative school together.

More than 125 different kinds of activities are being used by local districts under this \$40 million effort, according to Ray Morley, director of the program at the State education department. The local efforts include mentoring systems for students' personal and social development, before- and after-school activities to help students with their studies, peer tutoring, student leadership activities, summer activities that maintain students' academic learning, and alternative schools. Services to students at risk of dropping out include coordination with service agencies, outreach to families, and career and vocational education collaboration between schools and community colleges.

Morley particularly praises the alternative school movement in Iowa for its role in serving students who might drop out of school. There are 94 documented alternative schools in the State, most of

them alternative learning environments within high schools.

Demographic shifts are occurring in the State, however, that present new challenges, according to Morley. Immigrant groups, primarily Hispanic, are moving into the State. The number of students in classes teaching English as a second language doubled in the 1990's. The staff in alternative learning environments are struggling to find ways to link school and family values for these students.

Georgia

Three initiatives in Georgia are primarily related to the decrease in the dropout rate from 9 to 8 percent, between 1994 and 1997, according to Myra Tolbert, director of special projects/waivers at the Georgia Department of Education. Because academic failure is a main reason students give for dropping out, Georgia focuses on improving students' reading and math skills in both elementary and middle grades. The Reading Challenge for grades 4-8, which builds on renewed efforts in the lower grades, is an after-school academic enrichment program staffed by certified reading teachers. "This emphasis has really changed attitudes," says Tolbert. "Until it started, few people thought about teaching reading skills in the middle grades."

Georgia also organized Family Connection, in which State-level departments for education, adolescent health, labor, and juvenile justice plan collaboratively and encourage local communities to combine resources and services. Local communities receive planning grants to establish collaborative strategies.

In addition, new legislation will shift the emphasis of a State-financed alternative school program

from students with discipline problems to students who are academically behind. All 180 school districts are now expected to provide an alternative learning environment with smaller pupil:teacher ratios, more individualized instruction, and innovative teaching. Local districts can decide the structure, length, and intensity of the alternative.

New York

Despite great diversity in its enrollment and high-poverty areas, New York State is among the best-performing States at preventing dropouts. From 1993 to 1997, the dropout rate decreased from 4 percent to 3 percent.

Local districts design efforts to focus "on whatever they believe the problems to be," according to Carl Friedman of the Comprehensive Health and Pupil Services Team in the State education department.

"If the problems deal with diversity, that's what their training should emphasize, but if they decide the problem is reading skills, training on diversity will not do that much good."

A new emphasis on comprehensive support to keep students in school has emerged in recent years at the State and district levels.

Using a Centers for Disease Control model, the State team provides professional development and resources to measure a healthy environment for teaching and learning. "We try to communicate that discipline should have healthy consequences," Friedman explains. His team members help local educators collect and analyze data to measure risk factors that influence decisions to drop out of school on topics like overcrowded classrooms and schools and attendance.

Lessons Learned

- States offer multiple programs, including alternative high schools, schools-within-schools, comprehensive academic support (especially in reading), and coordinated social services, to reduce their high school dropout rates.
- Some States try to integrate the efforts of the education, health, juvenile justice, and social services aspects of State government and encourage local communities to coordinate services to students at risk of dropping out.
- Most see local communities as the entities that should set priorities and operate programs to prevent students dropping out of school in ways that are responsive to local needs.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Ray Morley
Consultant
Iowa Department of
Education
Grimes State Office
Building
Des Moines, IA 50319
(515) 281-3966

Carl Friedman
Comprehensive Health and
Pupil Services Team
New York State Department
of Education
318-M Education Building
Albany, NY 12234
(518) 486-6090

Dr. Myra Tolbert
Director of Special
Projects/Waivers
Georgia Department of
Education
1766 Twin Towers East
Atlanta, GA 30334
(404) 656-0643

Also:

Alternative Schools:
Dr. Cindy Blakeley
(404) 657-4122

Family Connection:
Marian Gamble
(404) 527-7594



GOAL 3: STUDENT ACHIEVEMENT AND CITIZENSHIP

By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.

Objectives:

- The academic performance of all students at the elementary and secondary levels will increase significantly in every quartile, and the distribution of minority students in each quartile will more closely reflect the student population as a whole.
- The percentage of all students who demonstrate the ability to reason, solve problems, apply knowledge, and write and communicate effectively will increase substantially.
- All students will be involved in activities that promote and demonstrate good citizenship, good health, community service, and personal responsibility.
- All students will have access to physical education and health education to ensure they are healthy and fit.
- The percentage of all students who are competent in more than one language will substantially increase.
- All students will be knowledgeable about the diverse cultural heritage of this nation and about the world community.



Indicator:

- Advanced Placement Performance: What States increased the number of Advanced Placement examinations receiving a grade of 3 or higher (per 1,000 11th and 12th graders)? (Data are from 1991 and 1999.)

Raising student academic achievement has become the central goal of education reform. One way the Goals Panel measures student mastery of challenging subject matter is by reporting performance on the Advanced Placement (AP) examination. Any

exam given a score of 3 or higher may earn college credit. Originally designed to serve college-bound students, AP courses are increasingly offered to provide *all* students access to challenging subject matter.

GOAL 3: Student Achievement and Citizenship

Advanced Placement Performance

Have states¹ increased the number of Advanced Placement examinations receiving a grade of 3 or higher (per 1,000 11th and 12th graders)?

↑	Better	51 states and the U.S.
↔	No Change	0 states
↓	Worse	0 states

Improvement over time

Between 1991 and 2000, the U.S. and 51 states (out of 51) significantly increased the numbers of Advanced Placement examinations receiving a grade of 3 or higher (per 1,000 11th and 12th graders):

1. Alabama	14. Illinois	27. Montana	40. Rhode Island
2. Alaska	15. Indiana	28. Nebraska	41. South Carolina
3. Arizona	16. Iowa	29. Nevada	42. South Dakota
4. Arkansas	17. Kansas	30. New Hampshire	43. Tennessee
5. California	18. Kentucky	31. New Jersey	44. Texas
6. Colorado	19. Louisiana	32. New Mexico	45. Utah
7. Connecticut	20. Maine	33. New York	46. Vermont
8. Delaware	21. Maryland	34. North Carolina	47. Virginia
9. District of Columbia	22. Massachusetts	35. North Dakota	48. Washington
10. Florida	23. Michigan	36. Ohio	49. West Virginia
11. Georgia	24. Minnesota	37. Oklahoma	50. Wisconsin
12. Hawaii	25. Mississippi	38. Oregon	51. Wyoming
13. Idaho	26. Missouri	39. Pennsylvania	

Highest-performing states*

States with the highest numbers of Advanced Placement examinations receiving a grade of 3 or higher (per 1,000 11th and 12th graders):

	(2000)
District of Columbia	271
Virginia	177
New York	173
Connecticut	167
Massachusetts	158
U.S.	104

* Top 5 states (out of 51).

Most-improved states

States that made the greatest gains in the numbers of Advanced Placement examinations receiving a grade of 3 or higher (per 1,000 11th and 12th graders):

	(1991)	(2000)	Change*
District of Columbia	177	271	+94
Connecticut	83	167	+84
Massachusetts	82	158	+76
New York	97	173	+76
Virginia	102	177	+75

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

BEST COPY AVAILABLE

¹ The term *state* is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 3: STUDENT ACHIEVEMENT AND CITIZENSHIP

While all states have increased the number of AP exams earning college credit, Connecticut, Virginia, and New York—along with Massachusetts—are among the highest performers and the most improved on this indicator.

Connecticut

Connecticut is both a top-performing State and one of the most improved States at increasing the number of AP exams receiving a grade of 3 or higher and therefore qualifying for college credit.

"Connecticut has had a strong AP program for some time now," said Tom Murphy, special assistant to the commissioner, Connecticut State Department of Education. The past few years have seen a concerted effort on behalf of the Commissioner of Education, Theodore Sergi, to expand AP course offerings and increase the number of students enrolled in AP courses. Sergi sent a letter to superintendents across the State with district-by-district data on the number of AP course offerings and students taking the exams to stir some competition among neighbors, and see "how we define ourselves as school districts," according to Murphy.

In one letter, Sergi comments on the AP program in Connecticut. "The Advanced Placement program does NOT require specific training or approval of teachers. To teach an AP course, a teacher must be willing and believe that students can achieve at high academic levels. If a teacher wishes to be better prepared, there are a number of programs that he or she can take during the summer. These include programs at Connecticut schools and colleges. There are also many Connecticut AP teachers ready to help others who are interested in teaching AP courses." In the same letter, Sergi argues for supporting "any elementary and middle school activity that would

build academic skills targeted at future enrollment in a high school AP course."

Connecticut specifically tries to increase the number of students taking AP courses and exams from the ranks of inner-city schools by providing inner-city teachers with AP prep courses free of charge. Sergi informed all superintendents and principals in Connecticut of a list of AP preparation courses for high school faculty members offered during the summer whose cost is covered by the State.

New York

In New York in 1991, 97 AP examinations per 1,000 11th and 12th graders received a grade of 3 or higher. By 2000, that figure jumped to 173. Richard Lynn, co-coordinator for curriculum and instruction with the New York Department of Education, attributes this rise to a more rigorous curriculum and an insistence that all students learn at high levels.

In the mid-1980's, New York's Regent's Action Plan took effect, leading to students taking more math than in the past and to a mandatory "accelerated" curriculum in grade 8. In the early 1990's, use of the National Council of Teachers of Mathematics (NCTM) standards and New York's own standards better prepared students to succeed in AP courses. By the late 1990's, students were required to pass the Regent's exam, rather than a competency test, to receive a diploma. "People saw this coming in the early 1990's," said Lynn, "and they prepared by upgrading the instruction," which had a side effect of boosting AP scores.

Virginia

In Virginia in the year 2000, 177 AP exams per 1,000 11th and 12th grade students earned a grade of 3 or higher. This was up from 102 in 1991, and well above the U.S. average for 2000 of 104.

According to Dr. Patricia Wright, director, secondary instructional services, Virginia Department of Education, Virginia's Standards of Learning in math, science, English, and social science "prepared for success in the AP exams." Then the State Board of Education established an accountability system for the State standards. Wright indicates, "One can safely say that we have had a concerted emphasis on more rigorous standards across the board at all levels in all schools." The Board of Education also requires as part of its standards of accreditation

that every school division offer at least two AP courses.

Wright pointed out that the Board of Education has two high school diploma seals, one that recognizes students who take AP courses and complete advanced work with an A or B average, and one that recognizes students who complete at least one AP or college-level course.

For 2 years, Virginia also has participated in the U.S. Department of Education's incentive grant program for AP that reduces the fee for low-income students. "The bottom line," said Wright, "is we have increased the State's content standards across the board and accreditation standards that require schools to offer AP and recognize students who take AP courses."

Lessons Learned

States that have improved and performed at high levels on AP have:

- Also supported improvements in student achievement in parallel but independent State efforts to raise academic standards and assess student learning within the State.
- Underwritten some of the expenses for students to take the exams and for teachers to prepare to offer the courses.
- Sometimes required or rewarded local districts that offer AP courses.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly. Richard Lynn

Tom Murphy
Connecticut State Department
of Education
165 Capitol Avenue
State Office Building
Hartford, CT 06106-1630
(860) 566-1304
www.state.ct.us/sde

Richard Lynn
Co-Coordinator for Curriculum
and Instruction
New York State Department of
Education
Albany, NY 12234
(518) 473-9471
www.nysed.gov

Dr. Patricia Wright
Director, Secondary Instructional
Services
Virginia Department of Education
P.O. Box 2120
Richmond, VA 23218
(804) 225-2880
www.pen.k12.va.us



GOAL 4: TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT

By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

Objectives:

- All teachers will have access to preservice teacher education and continuing professional development activities that will provide them with the knowledge and skills needed to teach an increasingly diverse student population with a variety of educational, social, and health needs.
- All teachers will have continuing opportunities to acquire additional knowledge and skills needed to teach challenging subject matter and to use emerging new methods, forms of assessment, and technologies.
- States and school districts will create integrated strategies to attract, recruit, prepare, retrain, and support the continued professional development of teachers, administrators, and other educators, so that there is a highly talented work force of professional educators to teach challenging subject matter.
- Partnerships will be established, whenever possible, among local educational agencies, institutions of higher education, parents, and local labor, business, and professional associations to provide and support programs for the professional development of educators.

Indicator:

- **Teacher Support:** What States increased the percentage of public school teachers who report that during their first year of teaching they participated in a formal induction program to help beginning teachers by assigning them to a master or mentor teacher? (Data are from 1994.) (*For related information on in-service teacher professional development in California, Connecticut, and Kentucky, see Promising Practices 1999.*)

Quality teaching and professional development are widely recognized as crucial to the success of education reform efforts. The Goals Panel has urged all Governors and State legislators to support good professional development as a lynchpin of efforts to raise academic standards.



Yet new teachers are sometimes hired and given very little support during the first, often stressful, year. Rather than permitting new teachers to "sink or swim," districts are increasingly trying to assign a mentor or master teacher to work with them.

GOAL 4: Teacher Education and Professional Development

Teacher Support

Have states¹ increased the percentages of public school teachers who report that during their first year of teaching they participated in a formal teacher induction program to help beginning teachers by assigning them to a master or mentor teacher?

↑	Better	17 states and the U.S.
↔	No Change	33 states
↓	Worse	1 state

Improvement over time

Between 1991 and 1994, the U.S. and 17 states (out of 51) significantly increased the percentages of public school teachers who reported that during their first year of teaching they participated in a formal teacher induction program to help beginning teachers by assigning them to a master or mentor teacher:

1. Arizona	7. Indiana	13. South Carolina
2. California	8. Kentucky	14. Texas
3. Connecticut	9. Missouri	15. Utah
4. Delaware	10. New York	16. Virginia
5. Florida	11. North Carolina	17. Wisconsin
6. Idaho	12. Pennsylvania	

Highest-performing states*

States with the highest percentages of public school teachers who reported that during their first year of teaching they participated in a formal teacher induction program to help beginning teachers by assigning them to a master or mentor teacher:

	(1994)
Florida	48%
Oklahoma	45%
Utah	40%
District of Columbia	39%
North Carolina	36%
California	35%
Kentucky	34%
Hawaii	33%

U.S. 27%**

* States that had a significantly higher percentage than the U.S. average.

** Percentage shown for the U.S. includes both public and nonpublic school data.

Most-improved states

States that made the greatest gains in the percentages of public school teachers who reported that during their first year of teaching they participated in a formal teacher induction program to help beginning teachers by assigning them to a master or mentor teacher:

	(1991)	(1994)	Change*
North Carolina	24%	36%	+12
Pennsylvania	20%	31%	+11
Kentucky	24%	34%	+10
New York	21%	31%	+10
Indiana	14%	22%	+9
Virginia	21%	30%	+9

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

BEST COPY AVAILABLE

¹ The term state is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 4: TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT

In an era of prosperity and full employment, an alarming number of teachers leave the profession within the first 3 years of teaching. To help retain them in teaching and help them learn to teach well, States and districts are increasingly offering first-year teachers a mentor or master teacher.

North Carolina

North Carolina made the greatest gains in the percentage of public school teachers who reported that during their first year of teaching they participated in a formal teacher induction program. In 1991, 24 percent of teachers surveyed said they had a mentor, a figure that rose to 36 percent in 1994. These data are scheduled to be updated by 2001.

Since 1986, North Carolina has advanced a teacher/mentor program, according to Eddie Ingram, licensure and mentoring official with the State's Department of Public Instruction. "It gives teachers a direction early in their careers. We need to give them this support because we want them to be teaching five years from now," he added. Serving as a mentor also enhances the professional growth of the experienced teachers.

Ingram explained that mentor teachers are now paid \$100 per month for 2 years if they work with teachers with no experience, although they embark on a 3-year mentor assignment.

The Department of Public Instruction and the North Carolina Center for the Advancement of Teaching developed an introductory-level training program called Mentoring North Carolina Novice Teachers. The mentor training program is focused on "providing academic help and support so new teachers can deliver the State's curriculum" to students. A guidebook, *Mentoring North Carolina Novice Teachers*, is made available to all teachers and the public at the Department of Public Instruction's website www.dpi.state.nc.us/mentoring_novice_teachers/.

Florida

Florida was the Nation's top-performing State in 1994, with the highest percentage (48 percent) of public school teachers who reported that during their first year of teaching they participated in a formal teacher induction program.

Ava Belitzky, bureau chief with the Florida Department of Education's Bureau of Educator Recruitment and Professional Development, said the State legislature in 1981 adopted the Beginning Teacher Program, later renamed the Professional Orientation program, which provided a year of support and induction of new teachers. Although never funded, the program assigned new teachers a support team that included the principal and a mentor teaching the same grade and subject. Belitzky said, "The statewide effort spearheaded local efforts." At least 60 percent of the State's school districts continued the program at the local level after the legislature repealed it in 1997.

Commissioner of Education Tom Gallagher released a "customer satisfaction survey" of first-year teachers in Florida. A startling 45 percent said they were inadequately prepared to teach to the State's academic standards for students, with 75 percent reporting that they were only minimally prepared to assess students' progress.

Pennsylvania

The percentage of public school teachers in Pennsylvania who reported that during their first year of teaching they participated in a formal teacher induction program rose 11 percentage points from 1991 to 1994.

Carol Bellew, professional development coordinator for the Pennsylvania Department of Education, reports that Pennsylvania has had a State induction program for new teachers on the books since 1987. Although the regulations adopted by the State Board of Education in 1984 and effective as of 1987 do not require a mentor teacher per se, they do call for a "mentoring relationship, which may be someone besides another teacher," explained Bellew. However, she added that the State "does not have any set-aside money for mentoring, so districts must take care of this from their State subsidy."

In Pittsburgh, a collaborative arrangement between the local union, the Pittsburgh Federation of Teachers (PFT), and the school district provides a comprehensive induction program. Once school begins, new teachers are assigned an instructional teacher leader from their building to serve as a mentor. The mentor receives released time and teaches a partial schedule.

Beginning teachers attend monthly group mentoring sessions. At each of these sessions, teachers meet in grade-level teams, led by a mentor teacher from the same level.

Lessons Learned

- Some States see mentoring first-year teachers as a tool to help retain teachers in a time of teacher shortages.
- Finding an adequate supply of qualified mentor teachers, and ensuring their availability for the teachers who need them most, present important challenges to local school districts.
- Mentoring first-year teachers is usually one aspect of a State's or district's broad set of professional development policies.

For More Information...

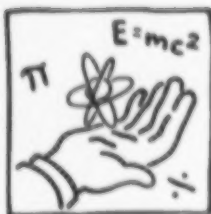
Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Eddie Ingram
Performance-Based
Licensure Program and
Mentoring and Initial
Licensing Program
North Carolina Department
of Public Instruction
301 N. Wilmington Street
Raleigh, NC 27601-2825
(919) 715-1246
www.dpi.state.nc.us

Ava Belitzky
Bureau Chief
Bureau of Educator
Recruitment and
Professional
Development
Florida Department of
Education
325 West Gaines Street,
Room 124
Tallahassee, FL 32399
(850) 922-9750
www.firn.edu/doe

Carol Bellew
Professional Development
Coordinator
Pennsylvania Department
of Education
333 Market Street, 8th Floor
Harrisburg, PA 17126-0333
(717) 772-9260
www.pde.psu.edu

Mary Van Horn
Vice President and
Director of
Education Research
and Development
Pittsburgh Federation of
Teachers
10 South 19th Street
Pittsburgh, PA 15203
(412) 431-5900



GOAL 5: MATHEMATICS AND SCIENCE

By the year 2000, United States students will be first in the world in mathematics and science achievement.

Objectives:

- Mathematics and science education, including the metric system of measurement, will be strengthened throughout the system, especially in the early grades.
- The number of teachers with a substantive background in mathematics and science, including the metric system of measurement, will increase by 50 percent.
- The number of United States undergraduates and graduate students, especially women and minorities, who complete degrees in mathematics, science, and engineering will increase significantly.

Indicators:

- Mathematics Resources—Computers: What states increased the percentages of public school 8th graders whose mathematics teachers report that they have computers available in their mathematics classroom? (Data are from 1996.)

The revolution in information technology holds promise as an important tool for education reform. Policymakers and the public hope that school computers connected to the Internet may offer practical ways to connect students and their teachers to the full body of human knowledge. Federal policy provides that schools receive reduced rates for telecommunication services in hopes that they may be centers where students from all economic levels learn to use these important tools. Student access to computers and the Internet at school is seen as one way for the Nation to prevent or overcome a "digital divide" between



those who have these tools at home and those who do not. Technology and its application are changing fast. When the National Education Goals were first set (1990), an eon ago in the evolution of schools' use of the Internet, the Goals Panel adopted the presence of computers in 8th grade math classes as one indicator of progress toward Goal 5. The Goals Panel's End-of-Decade report in 2001 will update this information. In 1996, Tennessee, Alaska, and Vermont—along with Wyoming—were the States that reported the highest percentages of students with access to computers in their math classes.

GOAL 5: Mathematics and Science

Mathematics Resources Computers

Have states¹ increased the percentages of public school 8th graders whose mathematics teachers report that they have computers available in their mathematics classrooms?

Improvement over time

Improvement over time cannot be determined yet because this information has been collected only once at the state level since 1990. The Goals Panel will report state improvements when this information is collected again in 2000.

Highest-performing states*

States with the highest percentages of public school 8th graders whose mathematics teachers reported that they had computers available in their mathematics classrooms:

	(1996)
Tennessee	54%
Alaska	50%
Vermont	44%
District of Columbia	42%
Wyoming	41%
U.S.	30%**

* States that had a significantly higher percentage than the U.S. average.

** Percentage shown for the U.S. includes both public and nonpublic school data.

Most-improved states

States that made the greatest gains in the percentages of public school 8th graders whose mathematics teachers reported that they had computers available in their mathematics classrooms:

The states that made the greatest improvements over time cannot be identified yet because this information has been collected only once at the state level since 1990. The Goals Panel will recognize the most-improved states when this information is collected again in 2000.

BEST COPY AVAILABLE

¹ The term state is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 5: MATHEMATICS AND SCIENCE

In 1996, only 30 percent of public school 8th graders nationwide had teachers who reported that they had computers available in their mathematics classroom. Four States, however, had significantly more. Only Tennessee, the top performer on this indicator, had more than half its students in math classes with computers, but Alaska and Vermont—as well as Wyoming—outperformed the rest of the country with 50 percent, 44 percent, and 41 percent, respectively.

Tennessee

During 1996, the latest year for which data are available, 54 percent of public school 8th grade math teachers in Tennessee reported that they had computers available in their math classrooms. The early 1990's saw the emergence of a statewide effort to connect classrooms with the Internet. Beginning in 1991, through the Virtual School sponsored by Vanderbilt University and Oak Ridge National Laboratories, all teachers were able to connect to the Internet via a dial-up modem connection. The Tennessee Department of Education responded to requests for more access to technology by placing a computer in the libraries of all 1,560 public schools. By December 1994, 7,500 teachers had been trained and had access to e-mail accounts, according to the Tennessee Department of Education.

In December 1994, transition to a network managed by the Tennessee Board of Regents was complete, and training for scores of teachers, librarians, and administrators continued through the Board of Regents, University of Tennessee, Vanderbilt University, and Oak Ridge National Laboratory.

The State's new goal became to connect all of Tennessee's schools to the Internet with a full graphic connection. ConnecTEN (Connect Tennessee Students) was created as the vehicle to help all schools gain access to the Internet with equipment that would allow a minimum of one computer per school. According to the Tennessee Department of Education, all schools in the State share access to a statewide network that links all 95 counties.

The Tennessee Department of Education also indicates the strong impact of the Federal Technology Literacy Grant as a catalyst for a more sophisticated use of technology in the classroom. In 1999, Tennessee conducted a "Great Tennessee Internet 'Learn Off,'" which relied on funds from the Technology Literacy Grant to reward teachers with approximately a \$200 incentive for completing professional development related to using technology to close an identified learning gap in student performance.

Alaska

In Alaska, half of all 8th grades had math teachers who reported that they had computers available in their classrooms. Local school budgets primarily financed computers in the classroom, according to Michelle DeShaw, program manager for technology and innovation in the Alaska Department of Education. "Local districts made the decision to buy computers, using a combination of local and state funds," she said. DeShaw also pointed to school partnerships with business as another means of putting computers in classrooms during the early 1990's. For example, British Petroleum (BP) provided company computers and teacher training to schools. "Apple is another strong player in the market," noted DeShaw, who added that while most businesses do not donate computers, they may offer significant discounts.

According to DeShaw, by 2000 over 90 percent of classrooms have been wired, with money coming from bonds, district funds, and e-rate financing. Net Day, which provides thousands of volunteers to

network schools, is "extremely successful," she said. DeShaw also highlighted the Alaska Science and Technology Foundation, which provides a one-time \$10,000 grant to each school for wiring purposes. The grant began in summer 1996 and is ongoing.

Vermont

The math teachers of 44 percent of Vermont's 8th-graders reported in 1996 that they had computers available in their classrooms. In the early 1990's, the math and science areas were the first to build computer labs because they were "quick-connect areas with technology," said Phil Hyjek, information technology specialist with the Vermont Institute for Science, Math and Technology, a nonprofit organization. As in Alaska, a combination of local dollars and seed money or in-kind contributions from business—in this case IBM—launched the placement of computers in classrooms. Apple Computers offered assistance with professional

development, explained Hyjek, who was then a school superintendent.

Wealthy school districts with highly educated parents were another impetus for getting computers into schools, said Hyjek. Parents who themselves were gaining computer literacy pressured schools to provide technology opportunities to their children. Three years ago, a State education reform law redistributed tax wealth by creating a "sharing pool" where lower-income school districts could get grants to speed the development of their schools' technology programs, thus providing technology opportunities to children of all economic backgrounds.

Since then, "Federal programs made the difference," said Hyjek. Like other State officials, Hyjek points to the Technology Literacy Challenge Grant (TLCF) as a primary source for wiring schools and training teachers. "If we were initially the innovators, TLCF has maintained us," he said.

Lessons Learned

- States have had help from private business and Federal policy in providing schools with new technologies, especially computers and Internet wiring. Between 1990 and 2000, some form of school access to the Internet became almost universal.
- Some high-performing States made teacher training in the use of the new technology part of their overall effort.
- While access to the technology is widespread, a great deal remains to be done to discover and apply effective ways to integrate the use of this technology in instruction.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Tennessee Department of Education
710 James Robertson Parkway
Nashville, TN 37243
(615) 741-2731
www.k12.tn.us

Michelle DeShaw
Alaska Department of Education
801 West 10th Street, Suite 200
Juneau, AK 99801-1894
(907) 465-4156
www.educ.state.ak.us

Phil Hyjek
Information Technology Specialist
Vermont Institute for Science,
Math and Technology
Dillingham Hall, 7 West Street
Montpelier, VT 05602
(802) 828-0063
www.vismt.org



GOAL 6: ADULT LITERACY AND LIFELONG LEARNING

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Objectives:

- Every major American business will be involved in strengthening the connection between education and work.
- All workers will have the opportunity to acquire the knowledge and skills, from basic to highly technical, needed to adapt to emerging new technologies, work methods, and markets through public and private educational, vocational, technical, workplace, or other programs.
- The number of quality programs, including those at libraries, that are designed to serve more effectively the needs of the growing number of part-time and midcareer students will increase substantially.
- The proportion of qualified students, especially minorities, who enter college, who complete at least two years, and who complete their degree programs will increase substantially.
- The proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively, and solve problems will increase substantially.
- Schools, in implementing comprehensive parent involvement programs, will offer more adult literacy, parent training, and lifelong learning opportunities to improve the ties between home and school, and enhance parents' work and home lives.

Indicator:

- Participation in Higher Education: What States increased the percentages of high school graduates who immediately enroll in 2- or 4-year colleges in any State? (Data from 1996.)

The ultimate achievement of school reform would be a Nation of literate adults with the knowledge and skills they need to succeed in the global economy and exercise their responsibilities as citizens. Whereas 100 years ago, most Americans thought that command of the three R's was sufficient literacy for most adults, increasingly, Americans believe adults will need continued study or training after high school. The Goals



Panel, therefore, reports the percentage of high school graduates who immediately enroll in 2- or 4-year colleges as one indicator of progress toward Goal 6, adult literacy. While States vary considerably on this indicator, 39 States have increased the rate of immediate post-secondary enrollment since 1992. (See *Promising Practices 1998 for information from Georgia, Florida, and Mississippi on this indicator.*)

GOAL 6: Adult Literacy and Lifelong Learning

Participation in Higher Education

Have states¹ increased the percentages of high school graduates who immediately enroll in 2-year or 4-year colleges in any state?

↑	Better	39 states
↔	No Change	1 state
↓	Worse	11 states

Improvement over time

Between 1992 and 1996, 39 states (out of 51) significantly increased the percentages of high school graduates who immediately enrolled in 2-year or 4-year colleges in any state:

1. Alabama	11. Georgia	21. Mississippi	31. Ohio
2. Alaska	12. Hawaii	22. Missouri	32. Pennsylvania
3. Arizona	13. Indiana	23. Montana	33. Rhode Island
4. Arkansas	14. Kansas	24. Nevada	34. South Carolina
5. California	15. Kentucky	25. New Hampshire	35. Tennessee
6. Colorado	16. Maine	26. New Jersey	36. Texas
7. Connecticut	17. Maryland	27. New Mexico	37. Virginia
8. Delaware	18. Massachusetts	28. New York	38. West Virginia
9. District of Columbia	19. Michigan	29. North Carolina	39. Wyoming
10. Florida	20. Minnesota	30. North Dakota	

Highest-performing states*

States with the highest percentages of high school graduates who immediately enrolled in 2-year or 4-year colleges in any state:

	(1996)
Massachusetts	73%
New York	71%
North Dakota	71%
Delaware	67%
California	66%
Rhode Island	66%

Indicators are not the same at the national and state levels.

* Top 6 states (out of 51).

Most-improved states

States that made the greatest gains in the percentages of high school graduates who immediately enrolled in 2-year or 4-year colleges in any state:

	(1992)	(1996)	Change*
District of Columbia	33%	58%	+25
California	50%	66%	+16
South Carolina	43%	59%	+16
Massachusetts	60%	73%	+14
Delaware	57%	67%	+10

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

BEST COPY AVAILABLE

¹ The term *state* is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 6: ADULT LITERACY AND LIFELONG LEARNING

Between 1992 and 1999, 39 States significantly increased the percentage of high school graduates who immediately enrolled in 2- or 4-year colleges. New York is among the top-performing States on this indicator, with 71 percent of high school graduates enrolling in college immediately after high school in 1996. South Carolina and California increased participation in higher education more than any other States, by 16 points each, rising from 43 percent in 1992 to 59 percent in South Carolina, and from 50 percent to 66 percent in California.

South Carolina

No State has increased the percentage of high school graduates who immediately enroll in college more than South Carolina, even though in 1992 only 43 percent of the State's high school graduates did so. South Carolina officials attribute this success to the State's 1984 education reform act, which emphasized both early childhood education and higher standards in grades K-12.

"Our State placed a great deal of emphasis on early education for at-risk children in the 1984 education reform legislation," explained Terry Peterson, former head of the South Carolina Business Education Partnership. "In the late 1980's, South Carolina required high school students to take more rigorous math courses, including geometry and trigonometry, and more years of science. At the same time, colleges were requiring students to have more math, science, and second languages," added Peterson, who became chief counselor to U.S. Secretary of Education Richard Riley. "Research found that all these things—strong early education, more advanced science and math, and 3 or 4 years of a foreign language—are good predictors of going to college."

In addition, in 1992 South Carolina launched an aggressive advertising campaign targeted to middle school children and their families. "Something happens in middle school and early high school that if kids and their families aren't made aware of the importance of going to college and of being

academically prepared for going to college, we lose their interest in ever enrolling in post-secondary education," said Peterson.

New York

In 1996, 71 percent of New York's high school graduates immediately enrolled in a 2- or 4-year college, placing the State among the three top-performing states on this indicator.

New York State programs credited with improving the percentage of students moving directly into college include precollegiate preparation programs administered by the New York State Education Department's Office of Higher Education, K-16 Initiatives and Access Programs. The office's mission is to "foster the development and implementation of collaborative partnerships among and between colleges, schools, community-based organizations, parents, students, business, industry and government in...New York State."

Today, the precollegiate preparation program unit provides services to at-risk youth in more than 500 elementary, middle, and secondary schools throughout the State. The Liberty Partnerships Program (LPP) offers financial and technical aid to help youth enrolled in grades 5 through 12 graduate from high school and enter postsecondary education and the workforce. The program, signed into law in 1988, provides tutorial services, counseling, career and college exploration activities, mentoring, and enrichment activities. Other services target

parents, guardians, school personnel, and service providers who work with LPP students, says Arlene Way, head of LPP.

Adolescent Vocational Exploration (AVE) targets 14- to 17-year-olds who are at risk of dropping out of school. AVE provides career and vocational exploration that may lead to college enrollment upon high school graduation. Jobs for Youth also focuses its efforts on disadvantaged youth, who may be in school or out of school. The goal is for the youth to obtain a diploma or GED and enter a higher education program.

California

California—along with Delaware and Massachusetts—were both among the top-performing and most-improved States on this indicator. In 1987, California issued a report, *Second to None*, that led to the creation of the California High School

Network, according to Sonia Hernandez, deputy superintendent, California Department of Education. This group brings high school leaders, including teachers, together with university officials to improve curriculums, take on such new reforms as schools-within-schools, and close the achievement gap between minority and white students. "But a big piece of the program is forming connections between the high schools and colleges to ease the transition into postsecondary institutions," noted Hernandez.

Simultaneously, high school students were allowed to take college courses for credit, which motivated many students to pursue higher education. State and education leaders also hammered out curriculum frameworks during this period. Higher standards and a more rigorous curriculum prepared students better for the college experience, said Hernandez.

Lessons Learned

- Some States credit the increase in students going on to college to improvements in their K-12 system caused by their development of higher academic standards and more rigorous curriculums, as well as to State implementation of Federal programs that encourage disadvantaged students to attend college.
- Other States find that new State and Federal financial assistance programs have contributed to more participation in higher education.
- Policymakers and the public increasingly believe that postsecondary education or training is important for most students and that a lack of financial means should not keep students from a higher education.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Jim Foster (for information on current State policy)
Communications Director
South Carolina Department of Education
1429 Senate Street
Columbia, SC 29201
(803) 734-8492
www.state.sc.us

Arlene Way (LPP)
Office of K-16 Initiatives and Access Programs
Pre-Collegiate Preparation Programs Unit
Room 965, EBA
Albany, NY 12234
(518) 486-5202
www.highered.nysed.gov

Sonia Hernandez
Deputy Superintendent
for Curriculum and Instruction
California Department of Education
721 Capitol Mall
Sacramento, CA 94544
(916) 657-3043
www.cde.ca.gov



GOAL 7: SAFE, DISCIPLINED, AND ALCOHOL- AND DRUG-FREE SCHOOLS

By the year 2000, every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

Objectives:

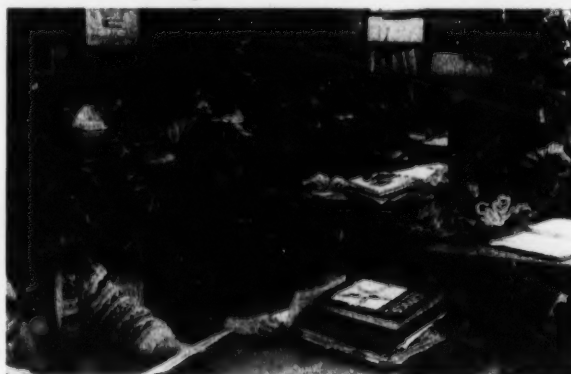
- Every school will implement a firm and fair policy on use, possession, and distribution of drugs and alcohol.
- Parents, businesses, and governmental and community organizations will work together to ensure the rights of students to study in safe and secure environments that are free of drugs and crime, and that schools provide a healthy environment and are a safe haven for all children.
- Every local educational agency will develop a sequential, comprehensive kindergarten through 12th grade drug and alcohol prevention education program.
- Drug and alcohol courses should be taught as an integral part of sequential, comprehensive health education.
- Community-based teams should be organized to provide students and teachers with needed support.
- Every school should work to eliminate sexual harassment.

Indicator:

- **Disruptions in Class by Students:** What States have reduced the percentages of public secondary school teachers reporting that student disruptions interfere with teaching? (Data are from 1994.)

To reach higher levels of academic achievement, it helps to have teachers and students working in a disciplined environment conducive to learning. Teachers and students, however, have different views about how much disruption interferes with teaching and learning. In 1992, 17 percent of 10th graders reported that student disruptions interfered with teaching and learning, a

percentage that did not change significantly by 1998. However, in 1991, 37 percent of secondary teachers reported that student disruptions interfered with their teaching, a percentage that increased to 46 percent in 1994. While these data need to be updated, North Dakota, Oklahoma, and Wyoming—as well as Montana—report more success on this indicator than other States.



GOAL 7: Safe, Disciplined, and Alcohol- and Drug-Free Schools

Disruptions in Class by Students

Have states¹ reduced the percentages of public secondary school teachers reporting that student disruptions interfere with teaching?

↑	Better	0 states
↔	No Change	14 states
↓	Worse	37 states and the U.S.

Improvement over time

Between 1991 and 1994, no state (out of 51) significantly reduced the percentage of public secondary school teachers reporting that student disruptions interfere with teaching.

Highest-performing states*

States with the lowest percentages of public secondary school teachers reporting that student disruptions interfere with teaching:

	(1994)
Montana	33%
North Dakota	33%
Oklahoma	39%
Wyoming	39%

U.S. 46%**

* States that had a significantly lower percentage than the U.S. average.

** Percentage shown for the U.S. includes both public and nonpublic school data.

Most-improved states

States that made the greatest reductions in the percentages of public secondary school teachers reporting that student disruptions interfere with teaching:

No state made a significant improvement between 1991 and 1994.

BEST COPY AVAILABLE

35

¹ The term state is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 7: SAFE, DISCIPLINED, AND ALCOHOL- AND DRUG-FREE SCHOOLS

The Goals Panel reports progress toward Goal 7, Safe Schools, on a variety of indicators. This year it reports on successful practices in three top-performing States, North Dakota, Oklahoma, and Wyoming, where the lowest percentage of public high school teachers report that student misbehavior interferes with their teaching.

North Dakota

In 1994, North Dakota and Montana had the lowest rates (33 percent) of public secondary school teachers reporting that student disruptions interfere with teaching, compared with the national average of 46 percent. Linda Johnson, director of health services for the North Dakota Department of Public Instruction, said the State's smaller schools are a significant reason why fewer students are disruptive in the classroom. According to Johnson, the average high school of grades 9 through 12 enrolls only 109 students. The high adult-to-student ratio translates into more adult supervision and improves the chances of strong relationships being forged between student and teacher.

Johnson also reports that the State promotes a healthy school culture through a conference held annually for the past 14 years. The North Dakota Roughrider Conference is held every summer, with about 60 to 70 school districts sending teams to develop an action plan for making their school a healthier place to work and learn. The conference combines personal wellness skills with teacher training to improve school health programs. The goals of the conference are to underscore the importance of the teacher as the model of behavior and to promote a healthier school environment for students. The conference also focuses on research-based curriculums designed to promote a healthier and safer school environment, notes Johnson. Teachers participate in curriculum training and also have the opportunity to improve their classroom management skills. The Department of Pub-

lic Instruction follows up on each team's action plan by hiring facilitators to follow a school's team throughout the year and write a year-end evaluation of their progress.

Oklahoma

Only 39 percent of Oklahoma's public secondary school teachers reported in 1994 that student disruptions interfere with their teaching. Gayle Robertson Jones, coordinator for Safe and Drug-Free Schools for the Oklahoma Department of Education, underscores the importance of small student-to-teacher ratios, where the students "have a chance to build relationships with teachers."

Gracy Taylor, safe schools coordinator with the Oklahoma City Public Schools, explained that during the late 1980's, the school district began a trainer-of-trainers program, focusing on effective discipline and teaching strategies for teachers to implement in the classroom. It was eventually transformed into a structured, long-term program. The discipline and teaching strategies program targeted first-year teachers and separated their workshops from those for veteran teachers, said Taylor. Taylor also credited the State for instituting a set of criteria used to evaluate teachers and administrators on classroom management and discipline issues.

Alternative schools may be the answer for some students who are disruptive in the classroom, said Taylor. "Kids learn in different ways," she explained. "Some need more structured environments and

smaller teacher-student ratios." She added, "anytime a student learner is engaged in learning, actively participating in the classroom, you will have fewer discipline problems.... Kids that are challenged, interested, and motivated are not going to disrupt the classroom."

Wyoming

Thirty-nine percent of Wyoming's public secondary school teachers reported in 1994 that student disruptions interfere with teaching. State rules and regulations are few in Wyoming, reports Mike Smith, unit director for health and safety at the Wyoming Department of Education. He attributes Wyoming's success in this indicator to the State's long-held tradition of local control and values. "We are a rural State, with small schools in small towns,

and that helps our children to be more respectful to teachers," he said.

Carol Mawford, unit director for school improvement programs, agreed with Smith's view. Prior to 1994, there were no State programs in effect that Mawford said might have led to Wyoming being a high performer in this indicator. Instead, the State's rural nature and strong sense of community limits classroom disruptions. "When you have small communities with schools that are culturally at the heart of your community, you have local social controls that you don't have in large cities," she said. Second, the strong communities give children a "network of people who all care about the kids of their community, so you have a large and broad parental support network for all children," she added.

Lessons Learned

- Officials feel that small schools in small communities where people tend to know one another have fewer disruptions in class than those in larger, more anonymous settings.
- Professional development for teachers and policies that focus staff on sound classroom management and instructional methods can reduce classroom disruptions.
- Some link the improvement of classroom discipline to other efforts to make the school a healthy learning community.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Gayle Robertson Jones
Coordinator of Safe and
Drug-Free Schools
Oklahoma Department of
Education
2500 N Lincoln Blvd., Suite 315
Oklahoma City, OK 73105
(405) 521-2107

Linda Johnson
Director of School Health Programs
North Dakota Department of
Public Instruction
600 East Blvd.
Bismarck, ND 58505
(701) 328-4138
www.dpi.state.nd.us

Mike Smith and Carol Mawford
Wyoming Department of Education
Hathaway Building, 2nd floor
2300 Capitol Avenue
Cheyenne, WY 82002-0050
(307) 777-7675
www.k12.wy.us



GOAL 8: PARENTAL PARTICIPATION

By the year 2000, every school will promote partnerships that will increase involvement and participation in promoting the social, emotional, and academic growth of children.

Objectives:

- Every State will develop policies to assist local schools and local educational agencies to establish programs for increasing partnerships that respond to the varying needs of parents and the home, including parents of children who are disadvantaged or bilingual, or parents of children with disabilities.
- Every school will actively engage parents and families in a partnership that supports the academic work of children at home and shared educational decision-making at school.
- Parents and families will help to ensure that schools are adequately supported and will hold schools and teachers to high standards of accountability.

Indicator:

- Influence of Parent Associations: What States have increased the percentages of public school principals reporting that the parent associations in their schools have influence in one or more of three areas of school policy (establishing curriculums, hiring new teachers, and setting discipline policy)? (Data are from 1994.)

Schools have always served the purposes of the communities that establish them. Recently, renewed efforts have been made to involve parents in important policy decisions within individual school buildings. There is a significant increase in the number of principals in 17 States reporting that parent associations within their schools have influ-



ence over curriculums, the hiring of new teachers, or discipline policy, and in no State has the percentage declined. In 1994, Colorado reported the largest percentage of principals (50 percent) and the largest increase (22 percent) in principals between 1991 and 1994 saying parent associations influence important policy decisions in their schools.

GOAL 8: Parental Participation

Influence of Parent Associations

Have states¹ increased the percentages of public school principals reporting that the parent associations in their schools have influence in one or more of three areas of school policy?

↑	Better	17 states
↔	No Change	34 states
↓	Worse	0 states

Improvement over time

Between 1991 and 1994, 17 states (out of 51) significantly increased the percentages of public school principals reporting that the parent associations in their schools have influence in one or more of three areas of school policy:

1. Alaska	6. Kentucky	11. Oklahoma	16. Vermont
2. Arizona	7. Massachusetts	12. Pennsylvania	17. Wisconsin
3. Colorado	8. Nevada	13. Rhode Island	
4. Idaho	9. New Mexico	14. Texas	
5. Iowa	10. New York	15. Utah	

Highest-performing states*

States with the highest percentages of public school principals reporting that the parent associations in their schools have influence in one or more of three areas of school policy:

	(1994)
Colorado	50%
Alaska	43%
New Mexico	40%
Kentucky	37%
California	36%

Indicators are not the same at the national and state levels.

* Top 5 states (out of 51).

Most-improved states

States that made the greatest gains in the percentages of public school principals reporting that the parent associations in their schools have influence in one or more of three areas of school policy:

	(1991)	(1994)	Change*
Colorado	28%	50%	+22
Kentucky	17%	37%	+20
Pennsylvania	10%	28%	+18
Vermont	8%	24%	+17
Alaska	27%	43%	+16
New York	18%	34%	+16
Utah	17%	33%	+16

* Differences between the first two columns may differ slightly from the figures reported in the change column due to rounding.

BEST COPY AVAILABLE

39

¹ The term state is used to refer to the 50 states, the District of Columbia, and the outlying areas.

GOAL 8: PARENTAL PARTICIPATION

In 1991, the rate of public school principals reporting that parent associations influenced curriculum, teacher hiring, or discipline policy in their schools ranged from a high of 37 percent in Hawaii to a low of 8 percent in Vermont. In 1994, there was a significant increase in these numbers in 17 States, reflecting a strong general trend.

Colorado

In 1994, Colorado was both the top-performing and the most improved State for the increasing influence of parent associations. Half the State's public school principals reported in 1994 that the parent associations in their schools have influence in curriculum, discipline, or hiring, a 22 percent increase from 1991.

"Accountability structures developed prior to school reform efforts of the 1990's required each building, not just the district, to submit improvement plans," said Jan Silverstein, a supervisor at the Colorado Department of Education. "These plans were developed by a committee that was required to include parent members." Silverstein added that although the law has been changed, the effort to include parent associations and parents in local decisionmaking has remained.

Silverstein credits former Governor Roy Romer with increasing parent involvement and parent association involvement in the schools, particularly through his emphasis on student standards. "Romer's goal was to make sure every Coloradan knew what children should know and be able to do at each grade level," said Silverstein. "He held tons of meetings, conducted surveys and generally sought feedback from parents, students, teachers and the community at-large," she added.

The confluence of the accountability law, the standards movement, and Colorado's strong ethic of local control served as catalysts for increasing the influence of parent associations in the State's schools, according to Jane Urschel, executive director of the Colorado School Board Association. She

explained that the 1988 School Finance Act made several provisions for accountability, among them the inclusion of parents on new school and district committees. "These were the precursors to site-based management," explained Urschel, and were strongly supported by the PTA.

California

California was among the top-performing States in 1994, with 36 percent of public school principals reporting that the parent associations in their schools have influence in school policy. In 1989, the State Board of Education adopted, and revised in 1994, a policy that encourages school boards to establish comprehensive, long-term efforts to involve families in the education of their children. California also passed the first law in the Nation in 1990 to require local school boards to adopt parent involvement policies, said Ann Bancroft, a supervisor at the California Department of Education. Bancroft explains that school-site councils were established during the early 1980's at each school to coordinate school-based programs, paving the way for intense parent association involvement in schools. The legislation required parent participation on the councils.

The PTA offers a structure to reach parents from different cultures and bring them into the schools, according to Maryanne Hudz, director of public relations for the California PTA.

It provides parents with education and information, and some offer space for "parent centers," which serve as a lounge for parent volunteers and a place for parent training sessions and other activities. Hudz cited the "wonderful" parent center at

Tarzana Elementary School (Tarzana, California), where parents could enroll in English as a second language classes. "The PTA used to be seen as a group of parents who help; now we are viewed as parents who know," she explained.

Kentucky

Kentucky was both a top-performing State and one of the Nation's most improved States in 1994. "The biggest change during that period was the enactment of the Kentucky Education Reform Act (KERA) in 1990," said Judi Conrad, president of the Kentucky PTA. She underscored the importance of

the school-based decision councils established in KERA and the State mandate to raise the level of parent and parent association involvement in the schools. "It brought parents to the table," said Conrad. KERA also paved the way for school-based decision councils made up of the principal and teachers, with two elected parents.

The Kentucky PTA takes its role in the councils seriously and has organized school-based decision-making forums. The goal is to sustain interest in school-based decisionmaking and help prepare parents for the roles they assume on the council.

Lessons Learned

- The role of parents and parent associations has been enhanced by the standards movement, the movement for site-based management of schools, and education reform policy in general.
- Many States require that parents be represented in school-based councils and school improvement planning processes.
- Parent associations have taken a more active role to meet the expectation that schools' academic standards should be developed by a broad political consensus-building process.

For More Information...

Visit the Goals Panel website at www.negp.gov/issues/issu/monthly.

Jan Silverstein
Supervisor, Colorado Department
of Education
201 East Colfax
Denver, CO
(303) 866-6806

Ann Bancroft
California Department of
Education
721 Capitol Mall
Sacramento, CA 95814
(916) 657-2451
www.cde.ca.gov

Judi Conrad
President, Kentucky PTA
P.O. Box 654
Frankfort, KY 40601
(502) 564-4378



PROGRESS ACROSS THE GOALS

World-Class Science Performance in Minnesota

Progress toward the National Education Goals does not happen one goal at a time, indicator by indicator. States usually work on a combination of activities to improve their entire education system, and they may address the central issue of student achievement through a set of interrelated activities. The Goals Panel undertakes case studies each year of States that data show are doing well across the goals or outstandingly in one particular area. This year, the Panel focused on how Minnesota attained its world-class science results in 1995 on the Third International Mathematics and Science Study (TIMSS). This study may be of interest to all State policymakers and of special utility to the 13 States and 14 districts that will receive results in 2001 from a repeated administration of TIMSS, TIMSS-R.

Progress Across the Goals: High Performance in Minnesota

The 1999 Goals Report shows that Minnesota was among the **highest performing** States on the following 14 measures of progress toward the Goals:

Children's Health Index

Low Birth Weight

High School Completion Rates

Mathematics Achievement (4th grade)

Mathematics Achievement (8th grade)

Science Achievement (8th grade)

Teacher Preparation—Academic Degrees

Teacher Preparation—Teaching Certificates

International Science Achievement

International Mathematics Achievement

Voting

Voter Registration

Parental Participation—Teachers' Perspective

Parental Participation—Principals' Perspective

In 1995, Minnesota participated in TIMSS. The results permitted the State to compare its results with those of the United States as a whole and with other participating nations.

In most respects, the results for Minnesota students were similar to those for the United States as a whole. Both Minnesota and the United States showed internationally competitive scores at the 4th grade level and declining relative scores at grades 8 and 12. Minnesota scores tended to be

slightly higher than those for the rest of the Nation in both math and science, and the decline in its scores at grades 8 and 12 was not as steep. In 8th grade science, Minnesota, unlike the rest of the United States, still performed at a world-class level, outperformed by only one other nation. To study how this happened, the Goals Panel commissioned a set of related papers, released as *Minnesota & TIMSS: Exploring High Achievement in Eighth Grade Science*.

Authors of the Study

The Goals Panel commissioned four papers to explore Minnesota's exceptional performance in 8th grade science. The Panel approached William Schmidt, executive director of the U.S. National Research Center, TIMSS, at Michigan State University, to do additional analyses of the Minnesota TIMSS data. The Panel asked Frances Lawrenz, Professor at the University of Minnesota in Minneapolis, to interview leaders in mathematics and science education around the state about patterns of curricula and instruction in the state. The Goals Panel asked Senta Raizen of the National Center for Improving Science Education to examine this evidence and present a synthesis of the findings. In addition, the Panel asked Bill Linder-Scholer, executive director of SciMath MN, to report on how the State had used its TIMSS findings and on lessons learned from Minnesota's participation in TIMSS.

Findings of the Case Study

The case study and analysis of the TIMSS data suggest some plausible explanations for Minnesota's world-class performance in 8th grade science:

High Expectations for All Students

Schmidt, Lawrenz, and Raizen each noted different overall expectations for Minnesota students in mathematics and science. Almost all Minnesota students in the 7th and 8th grades took the same science courses: life science in 7th grade and earth science in 8th grade. In contrast, mathematics classes in 7th and 8th grades were tracked, with different students receiving different content of different levels of difficulty. Linder-Scholer characterized this pattern, common

across the United States, as "curriculum differentiation and thus mixed 'expectations' for students."

Focus and Coherence in Curriculum

TIMSS allows analysts to break down the disciplines of mathematics and science into topic areas and to examine student scores and teacher's instruction in each. The pattern typical of the United States is to introduce large numbers of topics each year in mathematics and science, develop a few of them in depth, and repeat significant numbers of topics again in subsequent school years. In contrast, the highest performing nations introduce far fewer topics in any given school year, teach most of them in depth, and move on to new topics in subsequent years. The original TIMSS analysts thus concluded that the United States curriculum in mathematics and science was "a mile wide and an inch deep." (See *A Splintered Vision: An Investigation of U.S. Science and Mathematics Education*, Schmidt, McKnight, and Raizen, Kluwer Academic Publishers, 1997.)

The parallel analysis of Minnesota TIMSS data showed that the Minnesota curriculum in mathematics and in 4th grade science was similarly "a mile wide and an inch deep." But in 7th and 8th grade science in Minnesota, the findings were different. Here there were far fewer topics introduced and more time devoted to developing them in depth. The expectation in Minnesota was that all students would take the same science courses in grades 7 and 8. A consensus developed within the profession in Minnesota that life science would be taught in grade 7 and earth science in grade 8. Observers characterized these as "de facto State standards."



TIMSS analysts point out, "Three characteristics discussed elsewhere as lacking in the U.S. curriculum as a whole—focus, coherence, and international rigor—seemed much more to be present for Minnesota science at 7th and 8th grades. Not only is focus present but there is coherence about the science curriculum concentrating on a small number of topics all within a given area that cohered together within the broader sense of the discipline."

Alignment With Teacher Requirements and Professional Activities

On the basis of the case study interviews, it appears that the emergence of de facto standards in science was accompanied by other actions that resulted in greater alignment within science education in Minnesota. Both Schmidt and Lawrenz point to the significance of teacher certification requirements as a potential factor influencing student performance. For example, a certification in earth science was required to teach science in Minnesota in the 8th grade.

It also appears that through a process Lawrenz describes as "incremental but cumulative," a consensus emerged among classroom teachers, teacher educators, and State officials as to what constituted good instruction in science. The emerging consensus was influenced by and in turn further influenced statewide organizations such as SciMath MN, professional organizations such as the Minnesota Science Teachers Association, and State agencies. As a result, when TIMSS was administered in 1995, science teachers in the middle grades were more likely to use the same or similar texts and common instructional practices.

Continuity Over Time

The "incremental but cumulative" process noted above occurred over time. Some of the early factors, the influence of which is still present in Minnesota

science instruction, date to National Science Foundation science education programs of the 1960's. The critical aspect is that there was time for classroom teachers, administrators, and statewide leaders to evaluate various approaches to teaching science and to incorporate, modify, or reject various elements based on their apparent effectiveness. There was also time for the developing consensus to gain acceptance with teachers throughout the State and for supporting activities, such as professional development, to align with it.

In contrast, Lawrenz notes that mathematics curriculum and instruction in Minnesota were characterized by repeated "pendulum swings" between new approaches and "back to the basics." At the time TIMSS was administered, mathematics education was characterized by numerous, locally developed sets of standards or expectations and curriculum and instruction very similar to the rest of the Nation. Consequently, Minnesota TIMSS scores in mathematics, while slightly better, were not markedly different than those of the United States as a whole.

Capacity Within the Profession

The de facto science standards that emerged in Minnesota were not the product of official State action but developed organically among State science teachers and within their professional organizations. The same is true of the focus, coherence, and alignment that evolved around what science topics were to be taught and how they were to be taught. This fact demonstrates the capacity of educators to generate as well as implement overall educational improvement and shows what they can contribute to reform and improvement initiatives. It also suggests the necessity of aligning teacher training, professional development, and other teacher support mechanisms with the overall reform process.

RESOURCES: FOR FURTHER READING

The following resource section provides information about recent reports and organizations that may be of help to state policymakers. While it is not a comprehensive bibliography, it indicates how interested officials can secure publications and contact organizations relevant to their state education reform.

GOAL 1: Ready to Learn

Early Childhood Care and Education: An Investment That Works. (January 1997). National Conference of State Legislatures, 1560 Broadway, Suite 700, Denver, Colorado 80202. (303) 830-2054.

America's Kindergartners: Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999. (2000) U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics. Washington, D.C. www.nces.gov.

Caring for Our Future: The Content of Parental Care. Public Health Service Expert Panel on the Content of Parental Care. (1989) Washington, D.C. U.S. Public Health Service.

Closing the Gaps: Strategies for improving the Health of Massachusetts Infants. (1985) Massachusetts Department of Public Health. Boston, Massachusetts.

For Further Information

Association of Maternal & Child Health Programs. 1220 19th Street NW, Suite 801. Washington, D.C. 20036. (202) 775-0436. www.amchp.org.

GOAL 2: School Completion

Educational Attainment in the United States: March 1997. Department of Commerce, Bureau of the Census. 4401 Suitland Road, Room 2705, FOB 3, Suitland, Maryland 20746. (301) 457-3030. www.census.gov/population/www/socdemo/educattn.html.

"Dropout Rates in the United States: 1998," NCES, U.S. Department of Education, November 1999; <http://www.nces.ed.gov.2000022>.

"A Recommended Approach to Providing High School Dropout and Completion Rates at the State Level," NCES, U.S. Department of Education, February 2000; <http://www.nces.ed.gov.2000305>.

"How Can We Help?: Lessons from Federal Dropout Prevention Programs," September 1999, Mathematica Policy Research, Inc., Mark Dynarski or Philip Gleason, PO Box 2393, Princeton, NJ 08543-2393; (609) 799-3535.

How to Establish an Alternative School. (1995) John Kellmayer. Corwin Press, Inc., 2455 Teller Road, Thousand Oaks, California 91320-2218. (805) 499-9774.

No More Excuses: The Final Report of the Hispanic Dropout Project. U.S. Department of Education, Hispanic Dropout Project, Office of Bilingual Education and Minority Language Affairs, 330 C Street SW, Room 5082, Washington, D.C. 20202. (202) 205-8737. www.ed.gov/offices.obemla.

Who Took the GED?: GED 1999 Statistical Report. GED Testing Service at the American Council on Education, One Dupont Circle NW, Washington, D.C. 20036-1163. (202) 939-9490. www.acenet.edu.

For Further Information

GED Testing Service at the American Council on Education, One Dupont Circle NW, Washington, D.C. 20036-1163. (202) 939-9490. www.acenet.edu.

National Dropout Prevention Center, 205 Martin Street, Clemson University, Clemson, South Carolina 29631. (864) 656-2599. www.dropoutprevention.org.

GOAL 3: Student Achievement and Citizenship

Advanced Placement Then and Now. (nos. 176-177, Special Issue). (1995) Wade Curry. The College Board Review, 45 Columbus Avenue, New York, New York 10023-6992. (212) 713-8000. www.collegeboard.org.

Advanced Placement Yearbook. The College Board, 45 Columbus Avenue, New York, New York 10023-6992. (212) 713-8000. www.collegeboard.org.

African American Data Book: The Transition from School to College and School to Work (vol. 3). Frederick Patterson Research Institute, 8260 Willow Oaks Corporate Drive, P.O. Box 10444, Fairfax, Virginia 22031-4511. (703) 205-3570. www.patterson-uncf.org.

High Standards, American Style. American Federation of Teachers. American Educator, 555 New Jersey Avenue NW, Washington, D.C. 20001. (202) 879-4400.

For Further Information

Advanced Placement Test Fee Reduction Program. U.S. Department of Education. Portals Building. Room 4500. Washington, D.C. 20202-6140. (202) 260-2669.

GOAL 4: Teacher Education and Professional Development

Brown, C.A., Smith, M.S. and Stein, M.K. (1995) *Linking teacher support to enhanced classroom instruction.* Paper presented at the annual meeting of the American Educational Research Association. New York, New York.

Cohen, David and Hill, Heather. (1998). *Instructional Policy and Classroom Performance: The Mathematics Reform in California.* Consortium for Policy

Research in Education, University of Pennsylvania, Graduate School of Education.

Education Week. *QUALITY COUNTS 2000: WHO SHOULD TEACH.* 6935 Arlington Rd. Suite 100. Bethesda, Maryland 20814. (301) 280-3100. www.edweek.com.

Southern Regional Education Board. *Getting Beyond Talk: State Leadership Needed to Improve Teacher Quality.* 592 10th St. NW. Atlanta, GA 30318. (404) 875-9211. www.sreb.org.

Thomas B. Fordham Foundation. *The Quest for Better Teachers: Grading The States.* 1627 K Street NW, Suite 600. Washington, D.C. 20006. (202) 223-5452.

Darling-Hammond, Linda. (1999) *Teacher Quality and Student Achievement: A Review of State Policy Evidence.* Commission on Teaching and America's Future. New York, New York.

Teaching and Change Journal. (Fall 1998) *Professional Development Schools.* volume 6, number 1. Corwin Press/NEA. Thousand Oaks, California.

For Further Information

National Center for Education Statistics. U.S. Department of Education, Office of Educational Research and Improvement, 1990 K Street NW, Washington, D.C. 20006. <http://nces.ed.gov/pubsearch/index.html>.

National Commission on Teaching and America's Future. Box 117, Teacher's College, Columbia University, 525 West 120th Street, New York, New York 10027. (212) 678-4039 (FAX). www.tc.columbia.edu/-teachcomm.

National Education Association, 1201 16th Street NW Washington, D.C. 20036-3290. (202) 833-4000. www.nea.org.

American Federation of Teachers. 555 New Jersey Avenue NW. Washington, D.C. (202) 879-4400. www.aft.org.

GOAL 5: Mathematics and Science

Learning First Alliance. (1998) *Every Child Mathematically Proficient: An Action Plan of the Learning First Alliance*. Washington, D.C. www.learningfirst.org.

National Education Goals Panel. (1998) *Mathematics and Science Achievement State by State, 1998*. Washington, D.C. (202) 724-0015. www.negp.gov.

Education Week. *Technology Counts*. 6935 Arlington Road. Suite 100. Bethesda, Maryland 20814. (301) 280-3100. www.edweek.com.

For Further Information

Council of Chief State School Officers. One Massachusetts Avenue NW, Suite 700, Washington, D.C. 20001-1431. (202) 336-7016. www.ccsso.org.

National Council of Teachers of Mathematics. 1906 Association Drive, Reston, Virginia 20191-1593. (703) 620-9840. www.nctm.org.

Achieve, Inc. 8 Story Street. First Floor. Cambridge, Massachusetts 02138. (617) 496-6300. www.achieve.org.

Center for Children and Technology. 96 Wharton Street. 7th Floor. New York, New York 10014. (212) 807-4200. www.edc.org/cct.

E-Rate Program. School and Libraries Division. 2120 L Street NW. Suite 600. Washington, D.C. 20037. (202) 776-0200. www.sl.universalservice.org.

Office of Education Technology. U.S. Department of Education. 400 Maryland Avenue SW. Washington, D.C. 20202-0130. (202) 401-1444. www.ed.gov/Technology.

International Society for Technology in Education. 480 Charnelton Street. Eugene, Oregon 97401-2626. (800) 336-5191. www.iste.org.

National Alliance of Business. 1201 New York Avenue. Suite 700. Washington, D.C. 20005 (202) 289-0424. www.nab.org.

GOAL 6: Adult Literacy and Lifelong Learning

P. Barton. (December 1998). *Education After High School: Issues in Quantity, Quality, and Equity*. National Education Goals Panel. Washington, D.C.

National Center on Education and the Economy. (June 1990) *America's Choice: High Skills or Low Wages: The Report of the Commission on the Skills of the American Workforce*. Washington, D.C.

Access to Post-Secondary Education for 1992 High School Graduates. National Center for Education Statistics. Washington, D.C. www.nces.gov.

Changing Context For Post-Secondary Education. (2000) Center for Community College Policy. Education Commission of the States. Denver, Colorado. www.ecs.org.

Expanding College Opportunity: More Access, Greater Achievement, Higher Expectations. (2000) U.S. Department of Education. Washington, D.C. www.ed.gov.

Great Expectations. (2000) Public Agenda. New York. www.publicagenda.org.

For Further Information

American Council of Education. One Dupont Circle NW, Washington, D.C. 20046. (202) 939-9300.

Condition of Education 1999. (1999) National Center for Education Statistics. Washington, D.C. www.nces.gov.

National Education Goals Panel. 1255 22nd Street NW, Suite 502, Washington, D.C. 20037. (202) 724-0015. www.negp.gov.

National Institute for Literacy. 800 Connecticut Avenue NW, Suite 200, Washington, D.C. 20006-2712. (202) 632-1500. www.nifl.gov.

Southern Regional Education Board. 592 Tenth Street NW, Atlanta, Georgia 30318-5790. (404) 875-9211. www.peach.net/SREB.

GOAL 7: Safe, Disciplined, and Alcohol- and Drug-Free Schools

American Federation of Teachers. (1997). *Setting the State for High Standards: Elements of Effective School Discipline*. 555 New Jersey Avenue NW, Washington, D.C. 20001-2079. (202) 879-4400. www.aft.org.

Drug Strategies, Inc. *Safe Schools, Safe Students: A Guide to Violence Prevention Strategies*. 2445 M Street NW, Suite 480, Washington, D.C. 20037. (202) 663-6098. www.drugstrategies.com.

U.S. Departments of Education and Justice. (1998). *Annual Report on School Safety, 1998*. Safe and Drug-Free Schools Programs Office. U.S. Department of Education, 400 Maryland Avenue SW, Washington, D.C. 20202. www.ed.gov/offices/OESE/SDFS.

U.S. Department of Education (1998). *Turning Around Low-Performing Schools*. (800) USA-LEARN. www.ed.gov.

For Further Information

Bureau of At-Risk Children, 135 Dupont Street, Plainview, New York 11803-0760. (800) 99-YOUTH.

Centers for Disease Control and Prevention, Division of Violence Prevention, 4770 Buford Highway NW, Atlanta, Georgia 30341-3717. (770) 488-4362. www.cdc.gov/ncipc/dvp/dvp.

National Education Goals Panel, 1255 22nd Street, NW, Washington, D.C. 20037. (202) 724-0015. www.negp.gov.

GOAL 8: Parental Participation

Epstein, Joyce. (May 1995) "School, Family, Community Partnerships: Caring for the Children We Share." *Phi Delta Kappan*. vol. 77, no. 9.

Henderson, Anne T. and Nancy Berla. (1995) *A New Generation of Evidence: The Family Is Critical to Student Achievement*. Washington, D.C. Center for Law and Education.

Henderson, Anne T. (1987) *The Evidence Continues to Grow*. Columbia, Maryland. National Committee for Citizens in Education.

National Parent-Teacher Association. (1997) *National Standards for Parent/Family Involvement Programs*. Chicago, Illinois.

Powell, Douglas. (1998) *Promoting Parent-School Partnerships: Progress in Meeting National Education Goal 8*. National Education Goals Panel. Washington, D.C.

Public Education Network. (1999) *Helping Families Improve Local Schools*. Washington, D.C.

U.S. Department of Education. (1994) *Strong Families, Strong Schools: Building Community Partnerships for Learning*. Washington, D.C.

For Further Information

Center on School, Family and Community Partnerships at Johns Hopkins University, 3505 North Charles Street, Baltimore, Maryland 21218. (410) 516-8800. www.csos.jhu.edu.

Family Education Network, Statler Building, Suite 1215, 20 Park Plaza, Boston, Massachusetts 02116. (617) 542-6500. www.fen.org.

National Head Start Association, 1651 Prince Street, Alexandria, Virginia 22314. (703) 739-0875.

National Parent-Teacher Association, 330 North Wabash Avenue, Suite 2100, Chicago, Illinois 60611-3690. (312) 670-6782. www.pta.org.

Parents As Teachers National Center, Inc., 1001 76 Corporate Square Drive, Suite 230, St. Louis, Missouri 63132. (314) 432-8963.

Public Education Network, 601 13th Street NW, Suite 900 North, Washington, D.C. 20005. (202) 628-7460. www.PublicEducation.org.

*Progress Across the Goals:
World-Class Science
Performance in Minnesota*

Minnesota and TIMSS: Exploring High Achievement in Eighth Grade Science. (2000). National Education Goals Panel, 1255 22nd Street NW, Suite 502, Washington, D.C. 20037. (202) 724-0015. www.negp.gov.

A Splintered Vision: An Investigation of U.S. Science and Mathematics Education. (1996). National Center for Education Statistics, 1990 K Street NW, Washington, D.C. 20006. (202) 219-1333. <http://nces.ed.gov/timss>.

BEST COPY AVAILABLE

PROMISING PRACTICES: PROGRESS TOWARD THE GOALS 2000

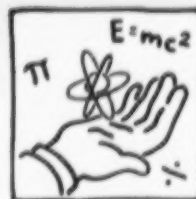
Information about specific States is on the following pages:

Alaska	26-27
California	31, 38-39
Colorado	38
Connecticut	10, 18
Florida	10, 22
Georgia	14-15
Iowa	14
Kentucky	39
Massachusetts	10-11
Minnesota	40-42
New York	15, 18, 30-31
North Carolina	22
North Dakota	34
Oklahoma	34-35
Pennsylvania	22-23
South Carolina	30
Tennessee	26
Vermont	27
Virginia	19
Wyoming	35

The National Education Goals



READY TO LEARN



MATHEMATICS
AND SCIENCE



SCHOOL COMPLETION



ADULT LITERACY AND
LIFELONG LEARNING



STUDENT ACHIEVEMENT
AND CITIZENSHIP



SAFE, DISCIPLINED, AND
ALCOHOL- AND
DRUG-FREE SCHOOLS



TEACHER EDUCATION
AND PROFESSIONAL
DEVELOPMENT



PARENTAL
PARTICIPATION

National Education Goals Panel

1255 22nd Street, NW, Suite 502

Washington, DC 20037

202-724-0015 • fax 202-632-0957

<http://www.negp.gov>

E-mail: NEGP@goalline.org